

Preparation for two-photon calcium imaging in visual cortex

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 An abbreviated version of this protocol was published in Science in Apr 2019

Spontaneous behaviors drive multidimensional, brainwide activity

DOI: 10.1126/science.aav7893

Detailed protocol

Hi! We used an "off-the-shelf" microscope from Thorlabs (Bergamo II) and the cranial window protocol is adapted from this detailed protocol:

<https://www.nature.com/articles/nprot.2014.165>.

To save costs on the microscope and reduce its complexity, I recommend a fiber laser (however it will lock you to a specific wavelength, e.g. 920nm for gcamp). There are also cheaper microscopes available, e.g. from Neurolabware. Good luck!

How to cite: (Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used)

1. Stringer, C. , Pachitariu, M. and Harris, K. (2022). Preparation for two-photon calcium imaging in visual cortex. Bio-protocol Preprint. bio-protocol.org/prep1589.
2. Stringer, C., Pachitariu, M., Steinmetz, N., Reddy, C. B., Carini, M. and Harris, K. D.(2019). Spontaneous behaviors drive multidimensional, brainwide activity. Science 364(6437). DOI: [10.1126/science.aav7893](https://doi.org/10.1126/science.aav7893)

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